



Marathon Petroleum Company LLC

1300 South Fort Street
Detroit, MI 48217
Telephone 313/843-9100

VIA FEDERAL EXPRESS

April 27, 2010

Ms. Teresa Seidel
Michigan DEQ – Air Quality Division
3058 West Grand Blvd.
Suite 2-300
Detroit, MI 48202

**Re: Continuous Emissions Monitoring System Reports for the First Quarter 2010;
Marathon Petroleum Company LLC – Michigan Refining Division**

Dear Ms. Seidel:

This report contains information and data related to continuous emissions monitoring systems (CEMS) at Marathon Petroleum Company LLC's (MPC's) Michigan Refining Division (MRD) for the first quarter 2010. These reports are submitted pursuant to the General Provisions of the federal New Source Performance Standards (40 CFR 60.7) and Rule 1170 of the Michigan Air Pollution Control Rules. In addition, this report contains information required by the first modification to the November 2005 First Revised Consent Decree, United States of America et. al. v. Marathon Petroleum Company LLC (Civil Action No. 4:01CV-40119-PVG), lodged February 7, 2008 and entered on March 31, 2008. This report is divided into four attachments as follows:

Appendix A – CEMS downtime and excess emissions summary reports pursuant to 40 CFR 60.7(d) for all environmental analyzers at the Refinery. All analyzers operated at less than 5% downtime and less than 1% excess emissions.

Appendix B - New Source Performance Standards (NSPS) Subpart J Alternate Monitoring Plan (AMP) data for eight streams: (1) Alky Deethanizer off-gas H₂S, (2) Alky Spent Caustic H₂S, (3) FCCU Disulfide off-gas H₂S, (4) CP Spent Caustic Drum Vent H₂S, (5) SR Aromatics Sump Vent H₂S, (6) CCR Chlorsorb Vent SO₂, (7) CCR/SR Recycle H₂ H₂S, and (8) DHT/Unifiner Recycle H₂ H₂S.

The refinery has four additional AMPs for which no data is being submitted: (1) The Crude Spent Caustic Drum was not directed to flare during this time period, (2) The BT Recycle Hydrogen, which was part of the BT Platformer unit, was permanently shutdown in September 2005, (3) CCR Lockhopper Vent Gas which currently cannot physically be vented to the flare or fuel system and (4) Propylene Deethanizer off-gas was re-routed to a location that the refinery's fuel gas H₂S analyzer will receive the stream. All AMPs were obtained in accordance with the NSPS General Provisions (40 CFR §60.13(i)).

Appendix C – Data from cylinder gas audits performed on CEMS located on the exhaust of the B&W Boiler, Crude and Vacuum Heaters, CCR Charge Heater, East Plant H₂S,

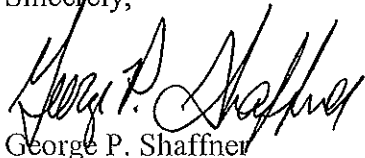
West Plant H₂S, FCC Charge Heater, Fluid Catalytic Cracking Unit (FCCU) Regenerator, the Zurn Boiler, and the Sulfur Plant Thermal Oxidizer. Relative Accuracy Test Audits (RATAs) were performed on the FCCU Regenerator and the B&W boiler the week of March 15th.

Please note, under the refinery's Title V permit in Table E-1.3, Section III.A.1 it indicates that quarterly cylinder gas audits of the FCCU opacity monitor are required; however, a quarterly cylinder gas audit program does not exist for this type of analyzer. The refinery is maintaining the analyzer according to the PTI 28-02A and completing a yearly audit of the analyzer. The refinery has requested a wording modification in the Title V renewal.

Appendix D – The FCCU Regenerator SO₂ and NO_x analyzer daily zero and span data. This information was requested during the Relative Accuracy Test Audit (RATA) conducted at the FCCU Regenerator on March 18th.

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information in Appendices A through D of this submittal is, to the best of my knowledge and belief, true, accurate, and complete. Please contact Tabettha Daum at (313) 297-4701 if you have any questions concerning this submittal.

Sincerely,



George P. Shaffner
Division Manager
Michigan Refining Division

Attachments

cc: Technical Programs Unit - MDEQ: AQD – c/o Karen Kajiya-Mills – *Federal Express*

Chief, Environmental Enforcement Section, Environment and Natural Resources Division, U.S.
DOJ - *Federal Express*

U.S. EPA, Director of Air Enforcement Division c/o Matrix Environmental and Geotechnical–
Federal Express

Air and Radiation Division, U.S. EPA Region 5 – *Federal Express*

Office of Regional Counsel, U.S. EPA Region 5 – *Federal Express*



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

**RENEWABLE OPERATING PERMIT
REPORT CERTIFICATION**

Authorized by 1994 P.A. 451, as amended. Failure to provide this information may result in civil and/or criminal penalties.

Reports submitted pursuant to R 336.1213 (Rule 213), subrules (3)(c) and/or (4)(c), of Michigan's Renewable Operating (RO) Permit program must be certified by a responsible official. Additional information regarding the reports and documentation listed below must be kept on file for at least 5 years, as described in General Condition No. 22 in the RO Permit and be made available to the Department of Environmental Quality, Air Quality Division upon request.

Source Name Marathon Petroleum Company LLC County Wayne
Source Address 1300 South Fort Street City Detroit
AQD Source ID (SRN) A9831 RO Permit No. 199700013c RO Permit Section No. 01

Please check the appropriate box(es):

☐ **Annual Compliance Certification** (General Condition No. 28 and No. 29 of the RO Permit)

Reporting period (provide inclusive dates): From _____ To _____

- ☐ 1. During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the RO Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the RO Permit.
- ☐ 2. During the entire reporting period this source was in compliance with all terms and conditions contained in the RO Permit, each term and condition of which is identified and included by this reference, **EXCEPT** for the deviations identified on the enclosed deviation report(s). The method used to determine compliance for each term and condition is the method specified in the RO Permit, unless otherwise indicated and described on the enclosed deviation report(s).

☐ **Semi-Annual (or More Frequent) Report Certification** (General Condition No. 23 of the RO Permit)

Reporting period (provide inclusive dates): From _____ To _____

- ☐ 1. During the entire reporting period, **ALL** monitoring and associated recordkeeping requirements in the RO Permit were met and no deviations from these requirements or any other terms or conditions occurred.
- ☐ 2. During the entire reporting period, all monitoring and associated recordkeeping requirements in the RO Permit were met and no deviations from these requirements or any other terms or conditions occurred, **EXCEPT** for the deviations identified on the enclosed deviation report(s).

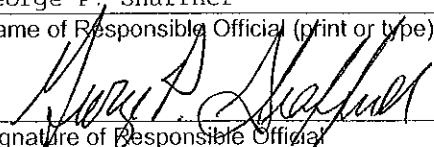
☒ **Other Report Certification**

Reporting period (provide inclusive dates): From 1/1/2010 To 3/31/2010

Additional monitoring reports or other applicable documents required by the RO Permit are attached as described:

Attached is the First Quarter 2010 CEMS compliance report.

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this report and the supporting enclosures are true, accurate and complete.

George P. Shaffner Division Manager (313) 843-9100
Name of Responsible Official (print or type) Title Phone Number
 4/28/10
Signature of Responsible Official Date

Appendix A

CEMS Downtime and Excess Emissions Summary Reports

Excess Emission and CEM Reporting Form

Pollutant: SO₂ (NO_x) CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Limas 11 (NO_x)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: 0.20 lbs/MMBTU

Emission Unit: BW Boiler

Average Time: daily average

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary	CEM Performance Summary																				
<p>1. Duration of Excess Emissions</p> <table> <tr> <td>A. Startup/Shutdown</td><td><u>0.00</u> hrs</td></tr> <tr> <td>B. Control Equipment</td><td><u>0.00</u> hrs</td></tr> <tr> <td>C. Process Problems</td><td><u>0.00</u> hrs</td></tr> <tr> <td>D. Other Known Causes</td><td><u>0.00</u> hrs</td></tr> <tr> <td>E. Unknown Causes</td><td><u>0.00</u> hrs</td></tr> </table> <p>2. Total Duration <u>0.00</u> hrs</p> <p>3. Percent of Total Excess Emissions <u>0.00</u> %</p>	A. Startup/Shutdown	<u>0.00</u> hrs	B. Control Equipment	<u>0.00</u> hrs	C. Process Problems	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs	<p>1. Duration of CEM Downtime During Source Operation</p> <table> <tr> <td>A. Monitor Malfunction</td><td><u>0.00</u> hrs</td></tr> <tr> <td>B. Non- Monitor Malfunction</td><td><u>0.00</u> hrs</td></tr> <tr> <td>C. QA Calibration</td><td><u>2.00</u> hrs</td></tr> <tr> <td>D. Other Known Causes</td><td><u>0.00</u> hrs</td></tr> <tr> <td>E. Unknown Causes</td><td><u>0.00</u> hrs</td></tr> </table> <p>2. Total Duration <u>2.00</u> hrs</p> <p>3. Percent of Total CEM Downtime <u>0.09</u> %</p>	A. Monitor Malfunction	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs	C. QA Calibration	<u>2.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
A. Startup/Shutdown	<u>0.00</u> hrs																				
B. Control Equipment	<u>0.00</u> hrs																				
C. Process Problems	<u>0.00</u> hrs																				
D. Other Known Causes	<u>0.00</u> hrs																				
E. Unknown Causes	<u>0.00</u> hrs																				
A. Monitor Malfunction	<u>0.00</u> hrs																				
B. Non- Monitor Malfunction	<u>0.00</u> hrs																				
C. QA Calibration	<u>2.00</u> hrs																				
D. Other Known Causes	<u>0.00</u> hrs																				
E. Unknown Causes	<u>0.00</u> hrs																				

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: URAS 14 (CO)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: 400 ppm

Emission Unit: BW Boiler (CO)

Average Time: daily average

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>2.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>2.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.09</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC₁ Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Magnos 106 (O₂)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: none

Emission Unit: BW Boiler (O₂)

Average Time: none

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>2.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>2.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.09</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC₁ Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Limas 11 (NO_x)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Unit: FCCU Regenerator

Emission Limit: 123 ppm

Average Time: 7 day average

Emission Limit: 93 ppm

Average Time: 365 day average

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>34.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>34.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>1.57</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: URAS 14 (CO)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: 500 ppm

Average Time: one hour average

Emission Unit: FCCU Regenerator

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>34.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>34.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>1.57</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Magnos 16 (O₂)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: none

Average Time: none

Emission Unit: FCCU Regenerator

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary	CEM Performance Summary
<p>1. Duration of Excess Emissions</p> <p>A. Startup/Shutdown <u>0.00</u> hrs</p> <p>B. Control Equipment <u>0.00</u> hrs</p> <p>C. Process Problems <u>0.00</u> hrs</p> <p>D. Other Known Causes <u>0.00</u> hrs</p> <p>E. Unknown Causes <u>0.00</u> hrs</p> <p>2. Total Duration <u>0.00</u> hrs</p> <p>3. Percent of Total Excess Emissions <u>0.00</u> %</p>	<p>1. Duration of CEM Downtime During Source Operation</p> <p>A. Monitor Malfunction <u>0.00</u> hrs</p> <p>B. Non- Monitor Malfunction <u>0.00</u> hrs</p> <p>C. QA Calibration <u>34.00</u> hrs</p> <p>D. Other Known Causes <u>0.00</u> hrs</p> <p>E. Unknown Causes <u>0.00</u> hrs</p> <p>2. Total Duration <u>34.00</u> hrs</p> <p>3. Percent of Total CEM Downtime <u>1.57</u> %</p>

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO2 NOx CO CO2 O2 TRS H2S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Limas 11 (SO2)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Unit: FCCU Regenerator

Emission Limit: 70 ppm

Average Time: 7 day average

Emission Limit: 35 ppm

Average Time: 365 day average

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>34.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>34.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>1.57</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Lighthawk 560

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Teledyne Monitor Labs

Emission Limit: 20% opacity

Average Time: 6 minute average

Emission Unit: FCCU Regenerator

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>7.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non-Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>5.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>12.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.56</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC₁ Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: 2000GC

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: 162 ppm

Average Time: 3 hour average

Emission Unit: West Plant Fuel Gas NSPS Heaters

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>11.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>11.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.51</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: 2000 Vista II

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: 162 ppm

Average Time: 3 hour average

Emission Unit: East Plant Fuel Gas NSPS Heaters

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>20.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>20.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.93</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: ENDA-1120

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Horiba

Emission Limit: 0.2 lbs/MMBTU

Average Time: 24 hour average

Emission Unit: Zurn Boiler

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>1.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>1.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.05</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: ZA8

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Yokagowa

Emission Limit: none

Average Time: none

Emission Unit: Zurn Boiler

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>0.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>0.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.00</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO2 NOx CO CO2 O2 TRS H2S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: 460 SRU

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Ametek

Emission Limit: 250 ppm

Average Time: 12 hour average

Emission Unit: Sulfur Recovery Unit Thermal Oxidizer

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>4.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>32.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>36.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>1.67</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: 460 SRU

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Ametek

Emission Limit: none

Average Time: none

Emission Unit: Sulfur Recovery Unit Thermal Oxidizer

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>4.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>32.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>36.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>1.67</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: URAS 14 (CO)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: 400 ppm

Average Time: daily average

Emission Unit: CCR Charge Heater (CO)

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary	CEM Performance Summary																				
<p>1. Duration of Excess Emissions</p> <table> <tr><td>A. Startup/Shutdown</td><td><u>0.00</u> hrs</td></tr> <tr><td>B. Control Equipment</td><td><u>0.00</u> hrs</td></tr> <tr><td>C. Process Problems</td><td><u>0.00</u> hrs</td></tr> <tr><td>D. Other Known Causes</td><td><u>0.00</u> hrs</td></tr> <tr><td>E. Unknown Causes</td><td><u>0.00</u> hrs</td></tr> </table> <p>2. Total Duration <u>0.00</u> hrs</p> <p>3. Percent of Total Excess Emissions <u>0.00</u> %</p>	A. Startup/Shutdown	<u>0.00</u> hrs	B. Control Equipment	<u>0.00</u> hrs	C. Process Problems	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs	<p>1. Duration of CEM Downtime During Source Operation</p> <table> <tr><td>A. Monitor Malfunction</td><td><u>0.00</u> hrs</td></tr> <tr><td>B. Non- Monitor Malfunction</td><td><u>0.00</u> hrs</td></tr> <tr><td>C. QA Calibration</td><td><u>1.00</u> hrs</td></tr> <tr><td>D. Other Known Causes</td><td><u>0.00</u> hrs</td></tr> <tr><td>E. Unknown Causes</td><td><u>0.00</u> hrs</td></tr> </table> <p>2. Total Duration <u>1.00</u> hrs</p> <p>3. Percent of Total CEM Downtime <u>0.05</u> %</p>	A. Monitor Malfunction	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs	C. QA Calibration	<u>1.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
A. Startup/Shutdown	<u>0.00</u> hrs																				
B. Control Equipment	<u>0.00</u> hrs																				
C. Process Problems	<u>0.00</u> hrs																				
D. Other Known Causes	<u>0.00</u> hrs																				
E. Unknown Causes	<u>0.00</u> hrs																				
A. Monitor Malfunction	<u>0.00</u> hrs																				
B. Non- Monitor Malfunction	<u>0.00</u> hrs																				
C. QA Calibration	<u>1.00</u> hrs																				
D. Other Known Causes	<u>0.00</u> hrs																				
E. Unknown Causes	<u>0.00</u> hrs																				

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Magnos 106 (O₂)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: none

Average Time: none

Emission Unit: CCR Charge Heater (O₂)

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>1.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>1.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.05</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC₁ Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: URAS 14 (CO)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: 400 ppm

Average Time: 1 hour average

Emission Unit: FCCU Charge Heater

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary	CEM Performance Summary																				
<p>1. Duration of Excess Emissions</p> <table> <tr> <td>A. Startup/Shutdown</td><td><u>0.00</u> hrs</td></tr> <tr> <td>B. Control Equipment</td><td><u>0.00</u> hrs</td></tr> <tr> <td>C. Process Problems</td><td><u>0.00</u> hrs</td></tr> <tr> <td>D. Other Known Causes</td><td><u>0.00</u> hrs</td></tr> <tr> <td>E. Unknown Causes</td><td><u>0.00</u> hrs</td></tr> </table> <p>2. Total Duration <u>0.00</u> hrs</p> <p>3. Percent of Total Excess Emissions <u>0.00</u> %</p>	A. Startup/Shutdown	<u>0.00</u> hrs	B. Control Equipment	<u>0.00</u> hrs	C. Process Problems	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs	<p>1. Duration of CEM Downtime During Source Operation</p> <table> <tr> <td>A. Monitor Malfunction</td><td><u>0.00</u> hrs</td></tr> <tr> <td>B. Non- Monitor Malfunction</td><td><u>0.00</u> hrs</td></tr> <tr> <td>C. QA Calibration</td><td><u>1.00</u> hrs</td></tr> <tr> <td>D. Other Known Causes</td><td><u>0.00</u> hrs</td></tr> <tr> <td>E. Unknown Causes</td><td><u>0.00</u> hrs</td></tr> </table> <p>2. Total Duration <u>1.00</u> hrs</p> <p>3. Percent of Total CEM Downtime <u>0.05</u> %</p>	A. Monitor Malfunction	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs	C. QA Calibration	<u>1.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
A. Startup/Shutdown	<u>0.00</u> hrs																				
B. Control Equipment	<u>0.00</u> hrs																				
C. Process Problems	<u>0.00</u> hrs																				
D. Other Known Causes	<u>0.00</u> hrs																				
E. Unknown Causes	<u>0.00</u> hrs																				
A. Monitor Malfunction	<u>0.00</u> hrs																				
B. Non- Monitor Malfunction	<u>0.00</u> hrs																				
C. QA Calibration	<u>1.00</u> hrs																				
D. Other Known Causes	<u>0.00</u> hrs																				
E. Unknown Causes	<u>0.00</u> hrs																				

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Magnos 106 (O₂)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: none

Average Time: none

Emission Unit: FCCU Charge Heater

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>0.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>0.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.00</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Limas 11 (NO_x)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: 0.05 lbs/MMBTU

Average Time: annual rolling average

Emission Unit: Crude/Vacuum Charge Heater

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>2.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>2.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.09</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: N/A

Reporting Quarter: First 2010

Monitor Model: Magnos 106 (O₂)

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: ABB

Emission Limit: none

Average Time: none

Emission Unit: Crude/Vacuum Charge Heater (O₂)

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non-Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>2.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>2.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.09</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: Flare Pilot

Reporting Quarter: First 2010

Monitor Model: SLX-202

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Powertrol

Emission Limit: Pilot Light Present

Average Time: continuously

Emission Unit: Vents to CP Flare

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>0.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes*	<u>16.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>16.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.74</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

*Other Known Causes: Hours in this category are attributed to weather, including rain and snow, as well as fog from cooling tower operation interfering with the sight of the analyzer. Visual checks verified a pilot was present.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: Flare Pilot

Reporting Quarter: First 2010

Monitor Model: SLX-202

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Powertrol

Emission Limit: Pilot Light Present

Average Time: continuously

Emission Unit: Vents to Alkylation Unit Flare

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>0.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes*	<u>3.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>3.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.14</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

*Other Known Causes: Hours in this category are attributed to weather, including rain and snow, as well as fog from cooling tower operation interfering with the sight of the analyzer. Visual checks verified a pilot was present.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: Flare Pilot

Reporting Quarter: First 2010

Monitor Model: SLX-202

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Powertrol

Emission Limit: Pilot Light Present

Average Time: continuously

Emission Unit: Vents to Unifiner Flare

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>0.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes*	<u>0.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>0.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.00</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

*Other Known Causes: Hours in this category are attributed to weather, including rain and snow, as well as fog from cooling tower operation interfering with the sight of the analyzer. Visual checks verified a pilot was present.

Excess Emission and CEM Reporting Form

Pollutant: SO₂ NO_x CO CO₂ O₂ TRS H₂S HC1 Opacity (Circle One)

Other: Flare Pilot

Reporting Quarter: First 2010

Monitor Model: SLX-202

Facility: Marathon Petroleum Company LLC
1300 South Fort Street
Detroit, MI 48217

Manufacturer: Powertrol

Emission Limit: Pilot Light Present

Average Time: continuously

Emission Unit: Vents to Crude Flare

Total Operating Hours of Emission Unit: 2160 hrs

Emission Data Summary		CEM Performance Summary	
1. Duration of Excess Emissions		1. Duration of CEM Downtime During Source Operation	
A. Startup/Shutdown	<u>0.00</u> hrs	A. Monitor Malfunction	<u>0.00</u> hrs
B. Control Equipment	<u>0.00</u> hrs	B. Non- Monitor Malfunction	<u>0.00</u> hrs
C. Process Problems	<u>0.00</u> hrs	C. QA Calibration	<u>0.00</u> hrs
D. Other Known Causes	<u>0.00</u> hrs	D. Other Known Causes*	<u>2.00</u> hrs
E. Unknown Causes	<u>0.00</u> hrs	E. Unknown Causes	<u>0.00</u> hrs
2. Total Duration	<u>0.00</u> hrs	2. Total Duration	<u>2.00</u> hrs
3. Percent of Total Excess Emissions	<u>0.00</u> %	3. Percent of Total CEM Downtime	<u>0.09</u> %

(% Total excess emissions) = (Total duration of excess emissions) / (Total operating time) x 100%

(% CEM downtime) = (Total duration of CEM downtime) / (Total operating time) x 100%

If there were no exceedences, the required analyses were made and no CEM downtime and/or excess emissions occurred during the reporting period.

*Other Known Causes: Hours in this category are attributed to weather, including rain and snow, as well as fog from cooling tower operation interfering with the sight of the analyzer. Visual checks verified a pilot was present.

Appendix B

New Source Performance Standards (NSPS) Subpart J Alternate Monitoring Plan (AMP) Data

New Source Performance Standards (NSPS) Subpart J Alternate Monitoring Plan (AMP) Data

Date	Complex 2 (AMP Sheet)	Complex 2 (AMP Sheet)	Complex 3 (AMP Sheet)	Complex 3 (AMP Sheet)	Complex 4 (AMP Sheet)	Complex 4 (AMP Sheet)	Complex 4 (Lab Data)	Complex 2 (Lab Data)
	Alky Deethanizer off-gas H ₂ S ppm 2 x week	Alky Spent Caustic H ₂ S ppm When flaring	FCCU Disulfide off-gas H ₂ S ppm 2 x year	CP Spent Caustic Drum Vent H ₂ S ppm 2 x year	SR Aromatics Sump Vent H ₂ S ppm 2 x year	CCR Chlorosorb Vent SO ₂ ppm 2 x year	CCR/SR Recycle H ₂ H ₂ S ppm 2 x year	DHT/Unifiner Recycle H ₂ H ₂ S ppm 5 x week
1/1/2010	0						<1	<1
1/2/2010	0						<1	<1
1/3/2010	0						<1	<1
1/4/2010	0						<1	<1
1/5/2010	0				0		<1	<1
1/6/2010	0				0		<1	<1
1/7/2010	0				0		<1	<1
1/8/2010	0						<1	<1
1/9/2010							<1	<1
1/10/2010							<1	<1
1/11/2010							<1	<1
1/12/2010					0		<1	<1
1/13/2010					0		<1	<1
1/14/2010		0			0		<1	<1
1/15/2010							<1	<1
1/16/2010							<1	<1
1/17/2010							<1	<1
1/18/2010							<1	<1
1/19/2010					0		<1	<1
1/20/2010	0				0		<1	<1
1/21/2010	0				0		<1	<1
1/22/2010	0						<1	<1
1/23/2010	0						<1	<1
1/24/2010							<1	<1
1/25/2010							<1	<1
1/26/2010					0		<1	<1
1/27/2010			0	Trace	0	0	<1	<1
1/28/2010					0		<1	<1
1/29/2010		0					<1	<1
1/30/2010							<1	<1
1/31/2010							<1	<1
2/1/2010	0				0		<1	<1
2/2/2010	0				0		<1	<1
2/3/2010	0				0	0	<1	<1
2/4/2010	0						<1	<1
2/5/2010	0						<1	<1
2/6/2010	0						<1	<1
2/7/2010	0						<1	<1
2/8/2010	0						<1	<1
2/9/2010	0				0		<1	<1
2/10/2010	0				0	0	<1	<1
2/11/2010	0				0		<1	<1
2/12/2010	0						<1	<1
2/13/2010	0						<1	<1
2/14/2010	0						<1	<1
2/15/2010	0						<1	<1
2/16/2010	0						<1	<1
2/17/2010	0						<1	<1
2/18/2010	0						<1	<1
2/19/2010	0						<1	<1
2/20/2010	0						<1	<1
2/21/2010	0						<1	<1
2/22/2010	0						<1	<1
2/23/2010	0				0		<1	<1
2/24/2010	0				0	0	<1	<1
2/25/2010	0				0		<1	<1
2/26/2010	0						<1	<1
2/27/2010	0						<1	<1

New Source Performance Standards (NSPS) Subpart J Alternate Monitoring Plan (AMP) Data

Date	Complex 2 (AMP Sheet)	Complex 2 (AMP Sheet)	Complex 3 (AMP Sheet)	Complex 3 (AMP Sheet)	Complex 4 (AMP Sheet)	Complex 4 (AMP Sheet)	Complex 4 (Lab Data)	Complex 2 (Lab Data)
	Alky Deethanizer off-gas H ₂ S ppm 2 x week	Alky Spent Caustic H ₂ S ppm When flaring	FCCU Disulfide off-gas H ₂ S ppm 2 x year	CP Spent Caustic Drum Vent H ₂ S ppm 2 x year	SR Aromatics Sump Vent H ₂ S ppm 2 x year	CCR Chlorosorb Vent SO ₂ ppm 2 x year	CCR/SR Recycle H ₂ H ₂ S ppm 2 x year	DHT/Unifiner Recycle H ₂ H ₂ S ppm 5 x week
2/28/2010	0						<1	<1
3/1/2010	0						ND	<1
3/2/2010	0						ND	<1
3/3/2010	0				0	0	<1	<1
3/4/2010	0				0		<1	<1
3/5/2010	0						<1	<1
3/6/2010	0						<1	<1
3/7/2010	0						ND	ND
3/8/2010	0						<1	<1
3/9/2010	0				0		<1	<1
3/10/2010	0				0	0	<1	<1
3/11/2010	0				0		<1	<1
3/12/2010	0						<1	<1
3/13/2010	0						<1	<1
3/14/2010	0						<1	<1
3/15/2010	0						ND	<1
3/16/2010	0				0		<1	<1
3/17/2010	0				0	0	<1	<1
3/18/2010	0				0		<1	<1
3/19/2010	0						<1	<1
3/20/2010	0						<1	<1
3/21/2010	0	0					<1	<1
3/22/2010	0						<1	<1
3/23/2010	0				0		<1	<1
3/24/2010	0				0	0	<1	<1
3/25/2010	0				0		<1	<1
3/26/2010	0						<1	<1
3/27/2010	0						<1	<1
3/28/2010	0						<1	<1
3/29/2010							<1	<1
3/30/2010							<1	<1
3/31/2010					0	0	<1	<1

Appendix C

Cylinder Gas Audit Information

Cylinder Gas Audit (CGA) Datasheet
Marathon Petroleum Company LLC - Michigan Refining Division

Analyzer: B&W Boiler CEMS

Analyzer Manufacturer: ABB

Analyzer model #'s: Limas 11 (NOx), Magnos 16 (O2), Uras 14 (CO)

Constituents monitored (w/ranges): NOx (0-500), CO (0-500), O2 (0-10%)

Date CGA performed: 2/2/2010

Performed by: Theo Taylor

Calibration gases used:

MAP stock #	Constituent	low- or mid-	Cylinder #	Exp date	Certified concentration	Units
76-188-232	NO	low	EB0007020	03/06/10	124.0	ppm
76-188-232	CO	low	EB0007020	03/06/10	123	ppm
76-188-219	O2	low	EB0007008	03/16/12	5.45	%
76-188-231	NO	mid	CC275764	08/13/11	267	ppm
76-188-231	CO	mid	CC275764	08/13/11	271	ppm
76-188-215	O2	mid	CC16318	05/09/10	9.28	%

Low-level CGA:

Start time	End time	NO	CO	O2
10:00	10:12	124	124.0	5.49
10:12	10:24	124	124.1	5.5
10:25	10:37	124.1	124.1	5.5
Average		124.0	124.1	5.50
Cal gas value		124.0	123.0	5.45
CGA accuracy		0.0%	0.9%	0.9%

High-level CGA:

Start time	End time	NO	CO	O2
10:37	10:49	266.3	271.0	9.33
10:49	11:01	266.2	271.0	9.33
11:01	11:13	266.1	271.0	9.33
Average		266.2	271.0	9.33
Cal gas value		267.0	271.0	9.28
CGA accuracy		0.3%	0.0%	0.5%

Cylinder Gas Audit (CGA) Datasheet
Marathon Petroleum Company LLC - Michigan Refining Division

Analyzer: Crude and Vacuum Heater NOx

Analyzer Manufacturer: ABB

Analyzer model #'s: Limas11 and Magnos 106

Constituents monitored (w/ranges): NOx (0-100) O2 (0-10%)

Date CGA performed: 1/4/2010

Performed by: Sergey Sukhorukov and Theo Taylor

Calibration gases used:

MAP stock #	Constituent	low- or mid-	Cylinder #	Exp date	Certified concentration	Units
76-188-132	NO	low	SX-10418	11/17/10	25.0	ppm
76-188-219	O2	low	CC316288	06/11/12	5.46	%
76-188-132	NO	mid	CC318496	09/24/11	53.2	ppm
76-188-215	O2	mid	CC99178	05/09/10	9.28	%

Low-level CGA:

Start time	End time	NO	O2
9:48	10:00	25.2	5.46
10:00	10:12	25.2	5.46
10:12	10:24	25.2	5.46
Average		25.2	5.46
Cal gas value		25.0	5.46
CGA accuracy		0.80%	0.00%

Mid-level CGA:

Start time	End time	NO	O2
10:26	10:38	54.1	9.19
10:38	10:51	54.1	9.19
10:51	11:03	54.1	9.19
Average		54.10	9.19
Cal gas value		53.2	9.28
CGA accuracy		1.69%	0.97%

Cylinder Gas Audit (CGA) Datasheet

Marathon Petroleum Company LLC - Michigan Refining Division

Analyzer: CCR Charge Heater

Analyzer Manufacturer: ABB

Analyzer model #'s: URAS 14 and Magnos 106

Constituents monitored (w/ranges): CO (0-500) and O2 (0-10%)

Date CGA performed: 3/9/2010

Performed by: Theo Taylor

Calibration gases used:

MAP stock #	Constituent	low- or mid-	Cylinder #	Exp date	Certified concentration	Units
76-188-166	CO	low	CC275870	03/20/12	124.0	ppm
76-188-166	O2	low	CC275870	03/20/12	5.08	%
76-188-165	CO	mid	CC275846	03/20/12	274	ppm
76-188-165	O2	mid	CC275846	03/20/12	8.97	%

Low-level CGA:

Start time	End time	CO	O2
6:48	6:57	122	4.92
6:57	7:07	123	4.93
7:07	7:16	123	4.93
Average		123	4.93
Cal gas value		124.0	5.08
CGA accuracy		1.1%	3.0%

Mid-level CGA:

Start time	End time	CO	O2
7:16	7:26	268	9.14
7:26	7:35	268	9.16
7:35	7:43	268	9.16
Average		268	9.15
Cal gas value		274	8.97
CGA accuracy		2.2%	2.0%

Cylinder Gas Audit (CGA) Datasheet

Marathon Petroleum Company LLC - Michigan Refining Division

Analyzer: East Plant Fuel Gas

Analyzer: West Plant Fuel Gas

Analyzer Manufacturer: ABB

Analyzer Manufacturer: ABB

Analyzer model #'s: 2000 VISTA II

Analyzer model #'s: 2000GC

Constituents monitored
(w/ranges): H2S (0-300)

Constituents monitored
(w/ranges): H2S (0-300)

Date CGA performed: 1/19/2010

Date CGA performed: 1/12/2010

Performed by: C. Muse and T. Taylor

Performed by: S. Sukhorukov and T. Taylor

Calibration gases used:

MAP stock #	Constituent	low- or mid-	Cylinder #	Exp date	Certified concentration	Units
76-188-017	H2S	low	EB0020396	11/10/10	75.5	ppm
76-188-019	H2S	mid	EB0003813	09/01/10	165	ppm

East Plant Fuel Gas

Low-level CGA:

Start time	End time	H2S
10:30	10:36	67.7
10:36	10:42	68.6
10:42	10:48	69.4
Average		69
Cal gas value		75.5
CGA accuracy		9.2%

Mid-level CGA:

Start time	End time	H2S
10:51	10:57	153.8
10:57	11:03	157.1
11:03	11:09	159.8
Average		157
Cal gas value		165
CGA accuracy		4.9%

West Plant Fuel Gas

Low-level CGA:

Start time	End time	H2S
10:02	10:07	71.6
10:07	10:11	71.8
10:11	10:15	71.6
Average		72
Cal gas value		75.5
CGA accuracy		5.1%

Mid-level CGA:

Start time	End time	H2S
10:27	10:31	161.3
10:31	10:35	161.1
10:35	10:39	161.1
Average		161.2
Cal gas value		165
CGA accuracy		2.3%

Cylinder Gas Audit (CGA) Datasheet
Marathon Petroleum Company LLC - Michigan Refining Division

Analyzer: FCC Charge Heater

Analyzer Manufacturer: ABB

Analyzer model #'s: URAS 14 and Magnos 106

Constituents monitored (w/ranges): CO (0-500) and O2 (0-10%)

Date CGA performed: 2/9/2010

Performed by: Doug Pek and Theo Taylor

Calibration gases used:

MAP stock #	Constituent	low- or mid-	Cylinder #	Exp date	Certified concentration	Units
76-188-166	CO	low	CC275870	03/20/12	124.0	ppm
76-188-166	O2	low	CC275870	03/20/12	5.08	%
76-188-165	CO	mid	EB0008474	10/27/12	272	ppm
76-188-165	O2	mid	EB0008474	10/27/12	9.01	%

Low-level CGA:

Start time	End time	CO	O2
9:39	9:48	123.5	5.25
9:49	9:57	123.5	5.21
9:58	10:07	123.5	5.21
Average		123.5	5.22
Cal gas value		124.0	5.08
CGA accuracy		0.4%	2.8%

Mid-level CGA:

Start time	End time	CO	O2
10:08	10:17	270.4	9.24
10:18	10:27	270.4	9.26
10:28	10:37	270.4	9.24
Average		270.4	9.25
Cal gas value		272	9.01
CGA accuracy		0.6%	2.6%

Cylinder Gas Audit (CGA) Datasheet

Marathon Petroleum Company LLC - Michigan Refining Division

Analyzer: FCCU Regenerator exhaust CEMS

Analyzer Manufacturer: ABB

Analyzer model #'s: Limas 11 (SO₂/NO_x), Magnos 16 (O₂), Uras 14 (CO/CO₂)

Constituents monitored (w/ranges): SO₂ (0-100/0-500), NO_x (0-1000), CO (0-1000), CO₂ (0-20%), O₂ (0-10%)

Date CGA performed: 2/16/2010

Performed by: Doug Pek and Theo Taylor

Calibration gases used:

MAP stock #	Constituent	low- or mid-	Cylinder #	Exp date	Certified concentration	Units
76-188-218	SO ₂	low	EB0005278	06/17/10	123.0	ppm
76-188-218	NO	low	EB0005278	06/17/10	245.0	ppm
76-188-218	CO	low	EB0005278	06/17/10	250	ppm
76-188-218	CO ₂	low	EB0005278	06/17/10	6.42	%
76-188-219	O ₂	low	EB00015269	02/16/12	5.49	%
76-188-213	SO ₂	mid	CC300240	12/03/11	265.0	ppm
76-188-213	NO	mid	CC300240	12/03/11	547.0	ppm
76-188-213	CO	mid	CC300240	12/03/11	545.0	ppm
76-188-213	CO ₂	mid	CC300240	12/03/11	11.0	%
76-188-215	O ₂	mid	CC16318	05/09/10	9.28	%
76-188-215	NO ₂	mid	CC16318	05/09/10	102	ppm

Low-level CGA:

Start time	End time	SO ₂	NO	CO	CO ₂	O ₂
12:19	12:32	116.6	275	263	6.61	5.44
12:33	12:46	121.7	274	263	6.62	5.44
12:46	12:59	124.8	273	263	6.61	5.45
Average		121	274	263	6.61	5.44
Cal gas value		123.0	245.0	250.0	6.42	5.49
CGA accuracy		1.6%	11.8%	5.2%	3.0%	0.9%

Mid-level CGA:

Start time	End time	SO ₂	NO	CO	CO ₂	O ₂
13:00	13:13	271	580	563	11.05	9.13
13:13	13:26	271.5	580	562	11.05	9.14
13:27	13:40	271.6	580	562	11.05	9.14
Average		271	580	562	11.05	9.14
Cal gas value		265	547.0	545	11	9.28
CGA accuracy		2.4%	6.0%	3.2%	0.5%	1.5%

Cylinder Gas Audit (CGA) Datasheet
Marathon Petroleum Company LLC - Michigan Refining Division

Analyzer: Zurn Boiler NOx and O2

Analyzer Manufacturer: Horiba (NOx) and Yokagowa (O2)

Analyzer model #'s: ENDA-1120 (NOx) and ZA8 (O2)

Constituents monitored (w/ranges): NOx (0-500) O2 (0-10%)

Calibration gases used:

MAP stock #	Constituent	low- or mid-	Cylinder #	Exp date	Certified concentration	Units
76-188-232	NO	low	EB0017232	11/25/11	126.0	ppm
76-188-219	O2	low	GMT10356TG	12/03/11	2.00	%
76-188-231	NO	mid	EB0009809	08/13/11	268	ppm
76-188-215	O2	mid	GMT2672645TG	12/03/10	8.00	%

NOx Analyzer

Date CGA performed: 3/18/2010

Performed by: Theo Taylor and Doug Pek

Low-level CGA:

Start time	End time	NO
10:16	10:25	125
10:25	10:34	124
10:34	10:43	124
Average		124
Cal gas value		126.0
CGA accuracy		1.3%

Mid-level CGA:

Start time	End time	NO
10:43	10:52	268
10:52	11:01	269
11:01	11:10	270
Average		269
Cal gas value		268
CGA accuracy		0.4%

O2 Analyzer

Date CGA performed: 3/29/2010

Performed by: Theo Taylor and Doug Pek

Low-level CGA:

Start time	End time	O2
1:44	1:46	1.97
1:46	1:48	2.13
1:48	1:50	2.15
Average		2.08
Cal gas value		2.00
CGA accuracy		4.2%

Mid-level CGA:

Start time	End time	O2
1:53	1:55	8.18
1:55	1:57	8.40
1:57	1:59	8.42
Average		8.33
Cal gas value		8.00
CGA accuracy		4.2%

Cylinder Gas Audit (CGA) Datasheet
Marathon Petroleum Company LLC - Michigan Refining Division

Analyzer: SRU Thermal Oxidizer SO2

Analyzer Manufacturer: Ametek

Analyzer model #'s: 460 SRU

Constituents monitored (w/ranges): SO2 (0-500) O2 (0-10%)

Date CGA performed: 3/3/2010

Performed by: Theo Taylor and Doug Pek

Calibration gases used:

MAP stock #	Constituent	low- or mid-	Cylinder #	Exp date	Certified concentration	Units
76-188-232	SO2	low	EB0005278	06/17/10	123.0	ppm
76-188-219	O2	low	EB0004459	05/19/11	5.49	%
76-188-231	SO2	mid	CC300240	12/03/11	265	ppm
76-188-215	O2	mid	CC16318	05/09/10	9.28	%

Low-level CGA:

Start time	End time	SO2	O2
10:13	10:19	122	5.54
10:20	10:25	124	5.44
10:26	10:32	124	5.38
Average		123.3	5.45
Cal gas value		123.0	5.49
CGA accuracy		0.3%	0.7%

Mid-level CGA:

Start time	End time	SO2	O2
10:34	10:40	262	9
10:40	10:46	265	8.99
10:46	10:53	266	9.02
Average		264.3	9.00
Cal gas value		265	9.28
CGA accuracy		0.3%	3.0%

Appendix D

FCCU Regenerator SO₂ and NO_x Analyzer Zero/Span

FCCU Analyzer Zero Span

SO2 Zero & Span Data

NOx Zero & Span Data

Tolerance +/- 25					Tolerance +/- 50				
	Span		Span SO2	Zero 11AI0812LOCAL		Span		Span NOx	Zero 11AI0813LOCAL
	Calibration Gas	Span				Calibration Gas	Span		
	SO2 ppm	SO2 ppm	Difference	SO2 ppm		NOx ppm	NOx ppm	Difference	NOx ppm
1/1/10 0:00	302.0	302.5	-0.5	-0.3		889.0	890.7	-1.7	0.0
1/2/10 0:00	302.0	302.8	-0.8	-0.1		889.0	891.2	-2.2	0.0
1/3/10 0:00	302.0	303.6	-1.6	0.0		889.0	890.7	-1.7	0.2
1/4/10 0:00	302.0	303.6	-1.6	-0.1		889.0	890.5	-1.5	0.5
1/5/10 0:00	302.0	302.6	-0.6	-0.1		889.0	889.5	-0.5	0.2
1/6/10 0:00	302.0	302.6	-0.6	-0.1		889.0	888.8	0.2	0.2
1/7/10 0:00	302.0	302.8	-0.8	-0.1		889.0	888.5	0.5	0.5
1/8/10 0:00	302.0	302.8	-0.8	-0.1		889.0	887.5	1.5	0.5
1/9/10 0:00	302.0	303.0	-1.0	-0.1		889.0	889.0	0.0	0.5
1/10/10 0:00	302.0	303.2	-1.2	-0.1		889.0	888.3	0.7	0.2
1/11/10 0:00	302.0	327.1	-25.1	-0.8		889.0	904.5	-15.5	-0.3
1/12/10 0:00	325.0	327.1	-2.1	-1.5		900.0	903.8	-3.8	-0.3
1/13/10 0:00	325.0	325.2	-0.2	-1.9		900.0	903.0	-3.0	-0.3
1/14/10 0:00	325.0	325.1	-0.1	-1.9		900.0	901.7	-1.7	-0.3
1/15/10 0:00	325.0	325.1	-0.1	-1.3		900.0	901.7	-1.7	-0.3
1/16/10 0:00	325.0	325.1	-0.1	-1.3		900.0	902.2	-2.2	-0.3
1/17/10 0:00	325.0	325.1	-0.1	-1.3		900.0	901.7	-1.7	0.2
1/18/10 0:00	325.0	325.2	-0.2	-1.4		900.0	900.3	-0.3	0.2
1/19/10 0:00	325.0	325.2	-0.2	-1.4		900.0	899.8	0.2	0.0
1/20/10 0:00	325.0	325.0	0.0	-1.3		900.0	900.3	-0.3	0.0
1/21/10 0:00	325.0	325.0	0.0	-1.3		900.0	900.0	0.0	0.2
1/22/10 0:00	325.0	324.7	0.3	-1.3		900.0	898.3	1.7	0.2
1/23/10 0:00	325.0	325.1	-0.1	-1.4		900.0	899.0	1.0	0.2
1/24/10 0:00	325.0	325.1	-0.1	-1.4		900.0	896.5	3.5	0.0
1/25/10 0:00	325.0	324.5	0.5	-1.2		900.0	895.2	4.8	0.0
1/26/10 0:00	325.0	325.2	-0.2	-1.2		900.0	896.0	4.0	0.2
1/27/10 0:00	325.0	325.2	-0.2	-1.4		900.0	897.7	2.3	0.2
1/28/10 0:00	325.0	327.8	-2.8	-1.4		900.0	903.5	-3.5	0.2
1/29/10 0:00	325.0	327.8	-2.8	-0.1		900.0	902.0	-2.0	0.2
1/30/10 0:00	325.0	326.5	-1.5	-0.1		900.0	902.0	-2.0	0.2
1/31/10 0:00	325.0	326.6	-1.6	-0.1		900.0	901.7	-1.7	0.2
2/1/10 0:00	325.0	327.0	-2.0	-0.1		900.0	901.2	-1.2	0.2
2/2/10 0:00	325.0	327.0	-2.0	-0.5		900.0	901.2	-1.2	0.0
2/3/10 0:00	325.0	326.1	-1.1	-0.7		900.0	900.5	-0.5	0.0
2/4/10 0:00	325.0	326.1	-1.1	-0.7		900.0	900.8	-0.8	0.5
2/5/10 0:00	325.0	326.4	-1.4	0.1		900.0	899.8	0.2	0.5
2/6/10 0:00	325.0	326.4	-1.4	-0.1		900.0	899.0	1.0	0.5
2/7/10 0:00	325.0	326.5	-1.5	-0.1		900.0	899.8	0.2	0.5
2/8/10 0:00	325.0	326.5	-1.5	-0.1		900.0	900.0	0.0	0.5
2/9/10 0:00	325.0	326.4	-1.4	-0.1		900.0	898.7	1.3	0.5
2/10/10 0:00	325.0	326.2	-1.2	0.1		900.0	896.3	3.7	0.5
2/11/10 0:00	325.0	326.1	-1.1	-0.1		900.0	898.0	2.0	0.7
2/12/10 0:00	325.0	326.2	-1.2	-0.1		900.0	896.3	3.7	0.7
2/13/10 0:00	325.0	326.4	-1.4	-0.2		900.0	896.5	3.5	0.7
2/14/10 0:00	325.0	326.5	-1.5	-0.2		900.0	895.2	4.8	0.7
2/15/10 0:00	325.0	326.6	-1.6	-0.3		900.0	895.0	5.0	0.7
2/16/10 0:00	325.0	327.1	-2.1	-3.6		900.0	895.2	4.8	0.5
2/17/10 0:00	325.0	327.1	-2.1	0.0		900.0	902.5	-2.5	0.2
2/18/10 0:00	325.0	325.9	-0.9	0.3		900.0	902.5	-2.5	0.0
2/19/10 0:00	325.0	326.2	-1.2	0.4		900.0	902.3	-2.3	0.0
2/20/10 0:00	325.0	326.4	-1.4	0.4		900.0	902.8	-2.8	0.0
2/21/10 0:00	325.0	326.6	-1.6	0.4		900.0	902.2	-2.2	0.0
2/22/10 0:00	325.0	326.6	-1.6	0.3		900.0	901.0	-1.0	0.0
2/23/10 0:00	325.0	326.4	-1.4	0.3		900.0	900.0	0.0	0.2
2/24/10 0:00	325.0	326.4	-1.4	0.3		900.0	900.5	-0.5	0.2
2/25/10 0:00	325.0	326.1	-1.1	0.3		900.0	900.3	-0.3	0.2
2/26/10 0:00	325.0	326.4	-1.4	0.4		900.0	898.5	1.5	0.2
2/27/10 0:00	325.0	326.4	-1.4	-1.0		900.0	897.7	2.3	0.2
2/28/10 0:00	325.0	324.1	0.9	-1.0		900.0	899.0	1.0	0.2
3/1/10 0:00	325.0	324.1	0.9	0.1		900.0	898.5	1.5	0.0
3/2/10 0:00	325.0	329.7	-4.7	0.0		900.0	899.2	0.8	0.0
3/3/10 0:00	325.0	329.7	-4.7	-0.3		900.0	897.5	2.5	0.2
3/4/10 0:00	325.0	329.7	-4.7	-0.3		900.0	898.5	1.5	0.2
3/5/10 0:00	325.0	330.2	-5.2	-0.2		900.0	898.5	1.5	0.0
3/6/10 0:00	325.0	329.5	-4.5	0.1		900.0	898.2	1.8	0.2
3/7/10 0:00	325.0	329.6	-4.6	-0.1		900.0	898.0	2.0	0.5
3/8/10 0:00	325.0	329.6	-4.6	-0.4		900.0	897.7	2.3	0.5
3/9/10 0:00	325.0	328.1	-3.1	-0.4		900.0	896.0	4.0	0.5
3/10/10 0:00	325.0	328.1	-3.1	-0.3		900.0	896.7	3.3	0.2
3/11/10 0:00	325.0	324.7	0.3	-0.3		900.0	895.5	4.5	0.2

FCCU Analyzer Zero Span

SO2 Zero & Span Data					NOx Zero & Span Data				
Tolerance +/- 25					Tolerance +/- 50				
	Calibration Gas	Span	Span SO2 Difference	Zero	Calibration Gas	Span	Span NOx Difference	Zero	
		11A10812HICAL		11A10812LOCAL		11A10813HICAL		11A10813LOCAL	
		Span SO2 ppm		SO2 ppm		Span NOx ppm		NOx ppm	
3/12/10 0:00	325.0	324.7	0.3	-0.9	900.0	895.8	4.2	0.2	
3/13/10 0:00	325.0	322.3	2.7	-0.9	900.0	895.0	5.0	0.2	
3/14/10 0:00	325.0	324.9	0.1	-0.2	900.0	893.5	6.5	0.0	
3/15/10 0:00	325.0	324.9	0.1	-0.7	900.0	894.5	5.5	0.2	
3/16/10 0:00	325.0	334.8	-9.8	-0.7	900.0	894.7	5.3	0.5	
3/17/10 0:00	325.0	334.8	-9.8	-3.3	900.0	903.3	-3.3	-0.3	
3/18/10 0:00	325.0	333.5	-8.5	-2.9	900.0	909.5	-9.5	-0.3	
3/19/10 0:00	325.0	331.6	-6.6	-4.6	900.0	902.5	-2.5	0.0	
3/20/10 0:00	325.0	334.3	-9.3	-4.6	900.0	903.0	-3.0	0.0	
3/21/10 0:00	325.0	334.3	-9.3	-3.1	900.0	903.5	-3.5	0.0	
3/22/10 0:00	325.0	333.5	-8.5	-3.8	900.0	903.0	-3.0	0.0	
3/23/10 0:00	325.0	332.2	-7.2	-3.8	900.0	900.3	-0.3	0.0	
3/24/10 0:00	325.0	330.5	-5.5	-3.9	900.0	901.7	-1.7	-0.5	
3/25/10 0:00	325.0	327.3	-2.3	-5.7	900.0	900.8	-0.8	-0.5	
3/26/10 0:00	325.0	324.0	1.0	-5.7	900.0	899.8	0.2	0.0	
3/27/10 0:00	325.0	332.2	-7.2	-11.7	900.0	901.7	-1.7	0.2	
3/28/10 0:00	325.0	332.2	-7.2	-11.7	900.0	900.5	-0.5	0.0	
3/29/10 0:00	325.0	331.7	-6.7	-3.7	900.0	903.0	-3.0	-0.3	
3/30/10 0:00	325.0	331.7	-6.7	-3.1	900.0	903.3	-3.3	-0.3	
3/31/10 0:00	325.0	325.4	-0.4	-2.8	900.0	903.0	-3.0	-1.2	